PROJECT NUMBER: 1902
PROJECT TITLE: Tobacco Microbiology
PROJECT LEADER: D. J. Ayers
WRITTEN BY: D. K. Chadick
PERIOD COVERED: February, 1988

I. ALTERNATE HUMECTANT PROGRAM

A. **Objective**: To determine the effects of storage time and temperature on Pilot Plant produced RL containing Isosweet (2 or 4%) as a replacement for the glycerol component.

B. **Status**: The study was completed and a memo was issued (1).

C. **Plans**: None at this time.

D. **References**:

1. Crockett E. A., Microbial Analyses of RL-TC and RL-150B With and Without Isosweet and K-pp in Place of PG and G as Part of the Alternate Humectant Program (AHP). Memo to E. Mooz; 1988 February 11.

II. HOGSHEAD, BOX, AND BALE STUDY

A. **Objective**: Microbially analyze Bright tobacco from the 1987 crop for baseline data and the 1986 Crop of bright after 1 year of warehouse storage as part of the Hogshead, Box and Bale 3 year study.

B. **Status**: Baseline microbial counts were established for Bright from the 1987 crop year (1). The microbial counts from bright tobacco after one year of storage were completed and indicated no significant change in counts between the samples stored in hogsheads, boxes or bales (2).

C. **Plans**: Microbial counts will be obtained after 1, 2 and 3 years of storage.

D. **References**:

1. Crockett E. A., Microbial Analyses of Bright Tobacco as Part of the Hogshead, Box, and Bale Study (initial counts from the 1987 crop). Memo to H. Webb; 1988 January 15.

2. Crockett E. A., Microbial Analyses of Bright Tobacco as Part of the Hogshead, Box, and Bale Study (1986 crop year after 1 year of storage). Memo to H. Webb; 1988 January 18.

III. MICROBIAL ANALYSES OF IRRADIATED CIGARETTES

A. **Objective**: To microbially analyze typical blended cigarettes (with and without aftercut casing) that had been packaged and then gamma-irradiated with 0, 0.50, 0.75, 1.0, or 2.0 millirad(s). This microbial investigation is part of the Taste, Odor, and Stale program.

B. **Status**: Work for this study (1) was completed and a memo was issued (2).

C. **Plans**: None at this time.

D. **References**:

1. Gaines, O. M. 1902 Monthly Progress Report Acc. #88-010; January, 1988.

2. Gaines O. M. Microbial Analyses of Irradiated Marlboro blend Cigarettes (with and without aftercut casing). Memo to D. B. Spruill; 1988 February 17.

IV. SHREDDED STEM STUDY (FOR PROJECT ART)

A. **Objective**: To determine if the ART process changes the microbial numbers in shredded bright stems (12% and 35% OV's) after being stored for 0, 24, 48, 72 and 96 hours and 1, 2, 4, 8, 12 weeks at 37°C.

B. **Results**: Shredded bright stem samples (12% and 35%) were tested before the citrate spray, after the citrate spray, immediately post-ART (35% OV only), and after drying. In this first experiment there were no significant increases seen from any of the samples after 4 weeks of storage (1).

C. **Plans**: This is an on-going study.

D. **References**:

Jones, J. Notebook No. 8590.